

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-4 (Cancelled).

5. (Currently Amended) The graphics system of claim ~~[[3]]~~ 25, wherein the graphics ~~coprocessor system~~ further includes a graphics pipeline, and wherein the graphics pipeline is operable to use ~~[[the]]~~ data copied out to the main memory in the texture buffer during area in a subsequent ~~[[a]]~~ rendering process.

6. (Currently Amended) The graphics system of claim ~~4~~ 25, wherein ~~the copy pipeline selectively reads data from the embedded frame buffer~~ may be programmably configured to store pixel data in either ~~[[in]]~~ RGB color format or YUV color format.

7. (Currently Amended) The graphics system of claim ~~[[6]]~~ 25, wherein the ~~[[copy]]~~ copy-out pipeline selectively converts the data from the embedded frame buffer to either a YUV display format or ~~[[a]]~~ an RGB texture format during a copy out of pixel data to the external frame buffer in main memory.

Claims 8-10 (Canceled).

11. (Currently Amended) The graphic system of claim ~~[[10]]~~ 7, wherein the ~~[[copy]]~~ copy-out pipeline converts the data to a YUV format if the data is intended for display.

Claims 12-16 (Canceled).

17. (Currently Amended) The method of claim ~~[[16]]~~ 26 wherein the YUV display format is a YUV 4:2:2 format.

Claim 18 (Canceled).

19. (Currently Amended) The method of claim ~~42~~ 26, further including performing a scaling operation on the data prior to writing the data to the main memory of the graphics system.

20. (Currently Amended) The method of claim ~~42~~ 26, further including performing a gamma correction operation on the data prior to writing the data to the main memory of the graphics system.

21. (Currently Amended) The method of claim ~~42~~ 26, further including performing an anti-aliasing operation on the data prior to converting the image data to YUV format and writing the image data to the frame buffer located in main memory of the graphics system.

22. (Currently Amended) The method of claim ~~42~~ 26 further including performing a de-flickering operation on the data prior to converting the image data to YUV format and writing the image data to the external frame buffer in main memory of the graphics system.

Claim 23 (Canceled).

24. (Currently Amended) In a ~~pipelined architecture~~ graphics system including a main processor and a pipelined architecture graphics coprocessor having an embedded frame buffer memory, the embedded frame buffer memory instantiated on a same semiconductor chip substrate as at least a portion of a graphics processing pipeline, and an external frame buffer in a main memory of said graphics system configured on one or more semiconductor chips separate from said graphics processing pipeline, a pixel data copy-out process wherein for copying pixel data is copied from said embedded frame buffer memory to said external frame buffer ~~for displaying on a monitor, a copy wherein said copy-out pipeline process that performs predetermined selected pixel data conversion and/or correction~~ filtering operations during transferring of pixel data from said embedded frame buffer to said external frame buffer, comprising:

selecting a sub-region of pixels in the embedded frame buffer as a source for a pixel data transfer operation, then selectively performing one or more of the following operations on pixel data selected for transfer from said embedded frame buffer to said external frame buffer:

antialiasing and/or deflicker filtering using pixel data sample from one or more rows of pixel data stored in said embedded frame buffer;

gamma correction of pixel data stored in said embedded frame buffer;

converting pixel data stored in said embedded frame buffer in RGB format to YUV format;

scaling the vertical display size of pixel data stored in said embedded frame buffer; and

selecting a destination in the external frame buffer for the pixel data transfer operation.

25. (new) A graphics system including a main processor and a graphics coprocessor having an embedded frame buffer, comprising:

a pixel data post-processing copy-out pipeline that selectively converts pixel data from one image format to another during a reading and transfer of the data from the embedded frame buffer to a separate non-embedded main memory of said graphics system, wherein the copy-out pipeline is operable to selectively transfer the data to either a display buffer area or a texture buffer area within said main memory and wherein the copy-out pipeline converts the data to a display format if the data is transferred to the display buffer area and converts the data to a texture format if the data is transferred to the texture buffer area.

26. (new) A method of reducing image data storage space and increasing main memory bandwidth when displaying image data from a frame buffer located in a main

memory in a graphics processing system, said graphics processing system including a graphics processing chip having an embedded frame buffer memory and a separate non-embedded main memory provided separate from said graphics processing chip, comprising:

storing RGB format image data in said embedded frame buffer on the graphics processing chip;

initiating a copy out operation for transferring said image data from the embedded frame buffer to the main memory of the graphics processing system;

converting said image data from an RGB format to a YUV display format during the copy out operation between the embedded frame buffer and main memory of the graphics system; and

writing the converted data to the frame buffer located in the main memory of the graphics system.